



An Added Burden:

The Impact of the HIV/AIDS Epidemic
on Communities of Color in Massachusetts

World AIDS Day
December 1, 2007

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Executive summary

Since the beginning of the HIV/AIDS epidemic in Massachusetts, members of communities of color have been affected at rates grossly disproportionate to their representation in the general population. While only 6% of the Massachusetts population are black and another 6% are Hispanic according to Census figures, over 28% of people living with HIV/AIDS in Massachusetts are black (non-Hispanic), 25% are Hispanic, 1% are Asian or Pacific Islander. Persons of color are far more likely than white individuals to be living with HIV, black and Hispanic individuals being 11 and 9 times more likely to be HIV+ than white individuals. This rate of disproportion is greater among women of color. While approximately half of men recently diagnosed with HIV are non-white, 83% of women recently diagnosed with HIV are women of color. These levels of disproportion are also evident in rates of death among persons of color with HIV.

Modes of HIV exposure among communities of color vary from that of white individuals (same-sex sexual behavior being more common among white men, injection drug use among white women), indicating higher rates of heterosexual and presumed heterosexual exposure in communities of color, especially among women. Behavioral analysis also suggests a tendency not to report same-sex contact or injection drug use among black men, possibly as a result of societal stigma surrounding these behaviors.

While the state investment in HIV/AIDS services is proportionally well matched to the representation of communities of color in the epidemic, this may be insufficient to achieving the goals of effective prevention, early intervention, and the provision of sustained health and support services to members of these communities. While medical services are well utilized across race/ethnicity among persons living with HIV/AIDS, lower utilization of preventive and testing services is evident, particularly among African American and other black individuals. Non-white individuals are also greatly under-represented in needle/syringe exchange programs. Stigma surrounding HIV/AIDS and the behaviors that transmit HIV, lack of knowledge about HIV and HIV risk, the relative lack of culturally and linguistically appropriate services, the under-representation of members of communities of color in HIV/AIDS services, and the compounding effects of the mistrust of the medical and public health system, multiple health issues, economic stressors, and societal racism and discrimination are factors in these patterns of low utilization of HIV/AIDS services.



Immigrant and refugee populations are an increasing proportion of the Massachusetts HIV/AIDS epidemic, and the majority of all newly diagnosed cases among communities of color. Sub-Saharan Africa, the Caribbean Basin, and Central/South America are the major regions of the world from which these populations originate. Late diagnoses in these populations are common, with 36% of recently diagnosed non-US born individuals having an AIDS diagnosis within two months of initial diagnosis of HIV infection. In addition to the factors complicating access to services common to all communities of color, non-US born individuals may be facing the added burden of immigration issues, fear of action by federal authorities, family displacement, special employment concerns, and social isolation.

The following are recommended actions to address the disproportionate impact of HIV/AIDS on communities of color:

- Expand the public health investment in programs serving members of communities of color so that it exceeds their relative representation in the epidemic
- Expand culturally-specific public information about HIV to build a greater level of knowledge about HIV risk, risk reduction, the utility of HIV testing, and the availability of HIV services among communities of color
- Expand social network outreach efforts to more effectively engage members of communities of color in preventive and testing services by relying on the trusting relationships that are a major source of resiliency in these communities
- Develop, test, and implement science-based prevention interventions that utilize the language, visual images, values, and traditions of various communities of color
- Expand the availability of needle/syringe access programs in locations likely to be utilized by members of communities of color
- Expand the representation of members of communities of color in the staffing of public health and medical programs
- Increase the availability of routine and rapid HIV testing in health care settings and other community locations likely to be utilized by members of communities of color
- Expand the availability of partner counseling and referral services to assist newly diagnosed HIV+ individuals to inform their partners of possible HIV exposure
- Continue and expand corrections-based health care and preventive services for HIV+ and at-risk members of communities of color.

I. Introduction

Since first identified in 1981, the HIV/AIDS epidemic in Massachusetts has been associated with a limited set of personal behaviors, including unprotected sexual intercourse and injection drug equipment sharing. In the early days of the epidemic, exposure to blood and blood products, such as transfusions and treatments for hemophilia, and birth to an HIV+ woman were additional routes of transmission, but thanks to extensive screening of the public blood supply and medical intervention for HIV+ women who are pregnant or considering pregnancy, these modes of exposure have been nearly eliminated in the United States. Therefore, the great majority of persons recently diagnosed with and living with HIV/AIDS are men who have sex with men, injection drug users, and the women sexual partners of these individuals.



However, a strictly behavioral analysis of the Massachusetts epidemic obscures a consistent underlying reality: that members of the Commonwealth's communities of color are significantly and consistently over-represented in the epidemiology of HIV/AIDS. This report examines the extent of this disproportionate impact of HIV in communities of color, describes differential patterns of recent infection and utilization of state-funded HIV/AIDS prevention and intervention services among various communities of color, and attempts to describe factors beyond risk behavior that contribute to these heightened burden of disease on these communities. This analysis concludes that additional public health interventions and resources are needed to adequately address the ongoing disproportionate impact of HIV/AIDS on black, Latino/a, and immigrant/refugee residents of Massachusetts.

II. History of the epidemic

AIDS (acquired immune deficiency syndrome) is the end-stage disease state characterized by severe damage to a person's immune system resulting from infection with HIV (human immunodeficiency virus). This immune system damage exposes an individual to a host of opportunistic infections, cancers, and other physical effects, such as significant weight loss. The underlying cause, HIV, is a blood-borne virus that is also present in sexual body fluids (semen, vaginal secretions) and breast milk.

Though first identified in the largest cities on the East and West coasts of the United States, HIV/AIDS rapidly emerged as a long-term, global pandemic affecting every region of the world. Nations in southern and eastern Africa in particular have been severely affected by the pandemic, with infection rates in some countries approaching 40% of young adults. Patterns of exposure vary by region, with same-sex sexual behavior and injection drug use being more common in North America, Europe, parts of South America, and Australia, while sexual intercourse between men and women and childbirth have been the predominant routes of transmission in Africa, the Caribbean Basin, and the Indian sub-continent.



Prior to the current era of effective medical interventions, the natural history of HIV led inexorably over time (often five to ten years) to an AIDS diagnosis for most individuals, further leading to early disability and death. Since the late 1980s, a range of medications have been developed that effectively slow the replication of HIV, allowing an infected individual to maintain or recover immune system function. In the late 1990s a novel strategy of combining multiple medications that act on different portions of HIV's life cycle was demonstrated to have even greater effect on health and survival. This strategy, titled Highly Active Anti-Retroviral Therapy (HAART), resulted in the so-called "Lazarus effect" for many persons living with late-stage HIV infection, allowing the return to near-normal health status and activities of daily living. This approach has the added effect of reducing the volume of HIV in an infected person's bodily fluids, reducing the likelihood of transmission to others. Due to its high cost and the complexity of the medical care that must accompany its use, HAART is much more available in the wealthy nations of the West, including the United States, than in the developing world. Current international efforts have aimed to reduce this disparity of access to life-saving medications.



The usefulness of multi-drug therapy is dependent on individuals knowing their HIV status. Since 1985 simple blood tests have been available to identify whether an individual is infected with HIV. In more recent years new generations of tests have enabled the screening of larger numbers of community members, using simple finger stick and oral swabs to detect HIV. The latest developments in this area include rapid HIV tests that can produce a preliminary result in as few as ten minutes, lowering historic barriers to HIV screening and subsequent entry into medical care.

Over the same period, behavioral scientists and public health researchers have collaborated with community-based providers to develop a set of effective prevention interventions. A large set of individual, small group, and community-level prevention approaches have been demonstrated to reduce risk behaviors among participants and been tailored to the particular languages, traditions, values, and life situations of various communities at risk. A combined package of effective prevention of primary infection,

widespread screening for HIV, early medical intervention, and a range of non-medical supportive services that support maintenance in care constitute the optimal range of HIV/AIDS services that, if equitably applied, hold the promise of containing and even reducing the scope of the HIV/AIDS epidemic.

However, the history of the epidemic has been consistently typified by patterns of unequal access to and utilization of these services, with evidence of higher rates of primary infection with HIV and lower rates of early identification of infection and entry into care by African Americans, other black residents, members of Latino communities, and several immigrant and refugee populations in Massachusetts. Our collective efforts to fight the HIV/AIDS epidemic in the Commonwealth require a close look at these disparities and an investment in mitigating their effects.



III. Evidence of disparity

The primary source of data about the disproportionate impact of the HIV/AIDS epidemic on communities of color is the state HIV/AIDS Surveillance Program maintained by the Massachusetts Department of Public Health's Bureau of Communicable Disease Control.

Since the beginning of the epidemic, 28,816 persons have been reported with a diagnosis of HIV infection or AIDS in Massachusetts. As of October 1, 2007, a total of 17,057 of these individuals were living with HIV/AIDS in the Commonwealth. Of these 7,734 were diagnosed with HIV (non-AIDS) and 9,323 with AIDS. Approximately 1/3 of these individuals were initially diagnosed while living in the Boston health service region (inclusive of Boston, Winthrop, Chelsea, and Revere), with the other regions of the Commonwealth each representing 9-14% of cases. The predominant mode of exposure among persons living with HIV/AIDS in Massachusetts was sexual behavior between men at 33% of cases, with injection drug equipment sharing representing 27% of cases. Another 13% of cases were definitively identified as linked to heterosexual exposure, while an

additional 15% were suspected or presumed heterosexual cases. Presumed heterosexual is a Massachusetts-specific epidemiologic category which links an HIV infection to heterosexual behavior in the absence of specific evidence that would satisfy the CDC definition of heterosexual transmission. These include, for women, knowledge of a male partner's having had sex with men, injection drug use, or HIV+ history. Individuals categorized under "presumed heterosexual" acknowledge no history of injection drug use or—for men—history of same-sex sexual behavior and have reason to believe they were exposed via unprotected heterosexual intercourse. (Fig. 1) (NOTE: All figures below utilize data through the end of 2005 reported as of 7/1/06 to avoid distortions associated with reporting delays that may affect more recently collected data.) Currently 296 persons who were exposed at birth to HIV are living with HIV/AIDS, many of whom having grown to adolescence and early adulthood with the virus. Over 71% of persons living with HIV/AIDS are men.

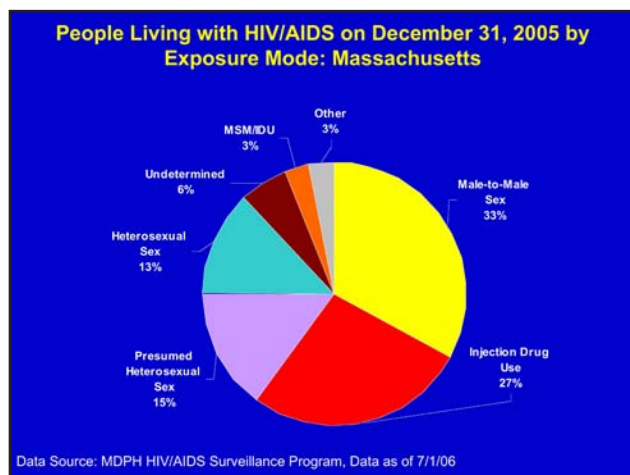


Figure 1

Between 900 and 1,000 individuals with HIV infection are newly reported annually to the Surveillance Program. Deaths among persons with HIV/AIDS have ranged from 300-350 per year in recent years. Therefore, the overall number of persons living with HIV/AIDS in Massachusetts (prevalence) has increased by 6% per year from 1999 to 2005. (Fig. 2)

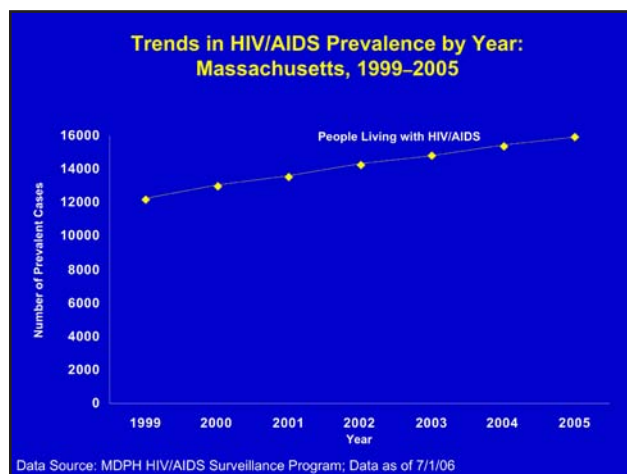


Figure 2

Analysis of HIV/AIDS by race and ethnicity follows the surveillance guidelines and categories established by the U.S. Centers for Disease Control and Prevention (CDC). These categories correspond to rules for characterization of race/ethnicity established by the federal Office of Management and Budget. They include an identification of Hispanic ethnicity distinct from consideration of race. That is, a person may be described as “white (Hispanic)” or “white (non-Hispanic)” and so on for each racial category.

It is important to note that the category “black” includes both individuals who identify as African American (often considered persons born in the US who are descended from members of the black community living in the US since the era of black slavery) and other black individuals, including persons born in Africa, the Caribbean Basin, and parts of Central and South America (and the recent-generational descendents of persons born in these regions). Throughout this document we will use the phrase “African Americans and other black individuals” or similar language when the intent is to be inclusive of all individuals of black race in Massachusetts.

Broad race/ethnicity categories can obscure important distinctions of national origin, spoken language, cultural heritage, personal history, and personal identity. Like with all demographic terms, how a person describes themselves may not correspond to these categorizations. For example, a person may identify by their language group, their country of origin, or sub-national cultural group with or without reference to race, but be categorized in a given dataset as black, white, or Asian, and by whether they share Hispanic heritage.

While only 6% of the Massachusetts population are black and another 6% are Hispanic according to Census figures, over 28% of people living with HIV/AIDS in Massachusetts are black (non-Hispanic), 25% are Hispanic, 1% are Asian or Pacific Islander.

This racial/ethnic disparity varies by sex:

- Among males living with HIV/AIDS, 23% are black (non-Hispanic) and 23% are Hispanic. (Fig. 3)
- Among females living with HIV/AIDS, 40% are black (non-Hispanic) and 28% are Hispanic. (Fig. 3)

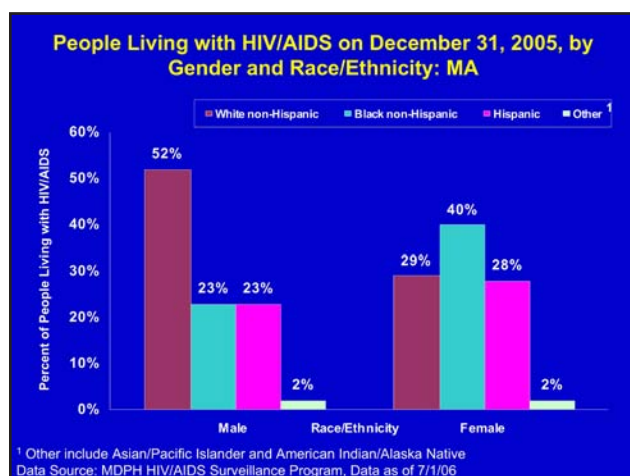


Figure 3

Evidence of the level of disproportionate impact on communities of color is even clearer when examining persons recently diagnosed with HIV: over one-half of men and 83% of women diagnosed with HIV in the most recent three-year period are non-white/non-Hispanic. (Fig. 4)

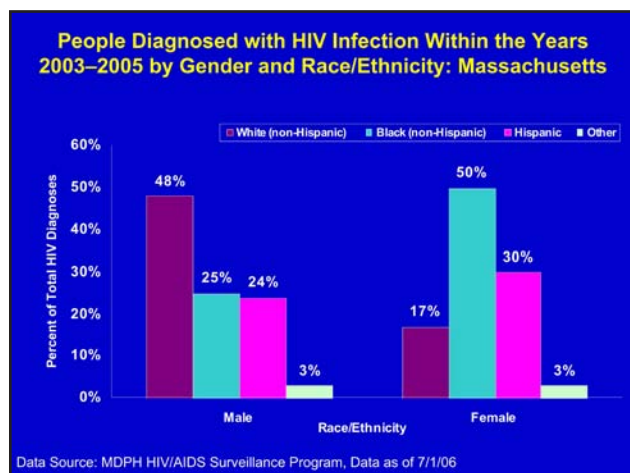


Figure 4

In order to directly compare different racial and ethnic populations, age adjusted rates of disease are calculated. These rates are defined as the number of diagnoses per 100,000 persons in each race/ethnicity group accounting for differences in age among groups. The rates of HIV/AIDS vary by age, and adjusting for age allow more direct comparison of older populations, such as white non-Hispanics, with younger populations, such as black and Hispanic individuals.

- The age-adjusted HIV/AIDS prevalence (persons living with HIV/AIDS on December 31, 2005) per 100,000 residents among black (non-Hispanic) and Hispanic individuals is 11 and 9 times that of white (non-Hispanic) individuals respectively. (Fig. 5)

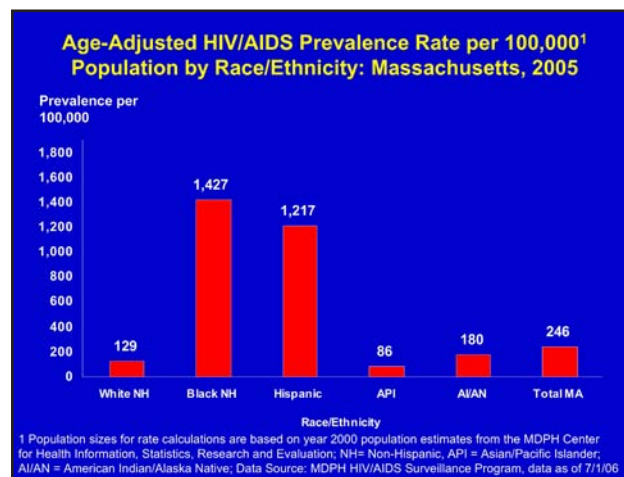


Figure 5

Again, relative patterns of impact vary by sex among communities of color, with the level of greatest impact being particularly evident among black women and Latinas:

- The age-adjusted prevalence of HIV/AIDS per 100,000 population, black (non-Hispanic) and Hispanic men are each affected at levels 8 times that of white (non-Hispanic) men (215 per 100,000).
- The age-adjusted prevalence of HIV/AIDS per 100,000 population, black (non-Hispanic) and Hispanic women are affected at levels 23 and 15 times that of white (non-Hispanic) women (48 per 100,000).

The impact on women of color is growing, as evidenced by rates of new infection where over 80% of recently diagnosed women are non-white. (Fig. 6)

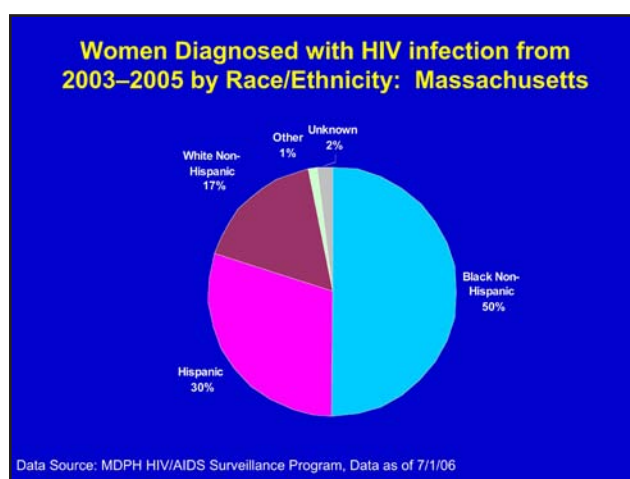


Figure 6

Despite the availability of effective treatments, HIV/AIDS remain a measurable contributor to premature deaths in all affected populations. The rate of death among persons with HIV/AIDS does not appear to vary by race/ethnicity, most likely as a result of widespread availability and utilization of highly active antiretroviral therapy in Massachusetts. However, deaths among persons with HIV/AIDS tend to parallel the prevalence of HIV/AIDS in affected communities. Therefore, the previously noted disproportionate prevalence of HIV/AIDS in communities of color translates into an equivalently disproportionate rate of deaths among persons with HIV/AIDS in these communities. (Fig. 7)

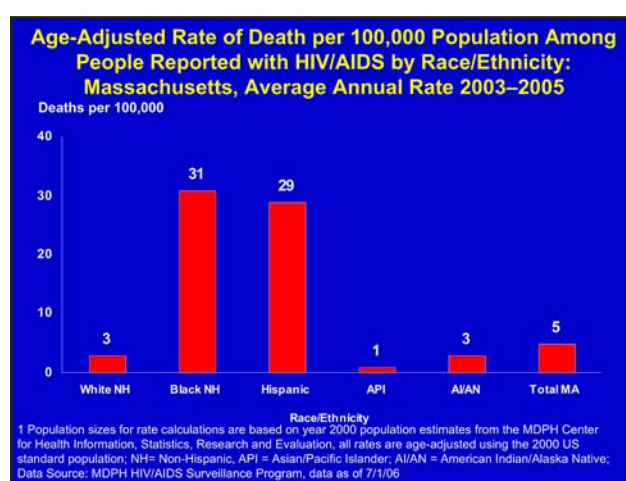


Figure 7

IV. Factors influencing HIV/AIDS risk among communities of color

HIV is transmitted via unprotected sexual intercourse, the sharing of injection drug equipment, exposure to blood and unscreened blood products, and via perinatal exposure. Each of these exposure modes are represented in the epidemiology of HIV/AIDS among Massachusetts communities of color (NOTE: mother-to-child transmission has been greatly reduced in Massachusetts since the advent of effective treatments—coupled with widespread screening of pregnant women—such that no more than three HIV positive infants have been born to Massachusetts women since 2001.)

However, analysis of patterns of recent infections reveals differential patterns of these modes of exposure by race/ethnicity. The predominant mode of exposure among white non-Hispanic individuals diagnosed with HIV infection from 2003 to 2005 is male-to-male sex (59%). The predominant mode of exposure among black non-Hispanic individuals is presumed heterosexual sex with partners with unknown risk and HIV status (41%). Among Hispanic individuals, injection drug use accounts for 24%, presumed exposure through heterosexual sex 22%, and male-to-male sex 21% of reported exposures to HIV infection.

Again, these patterns further vary when examined by gender and race/ethnicity together. While for white men, sex with other men is the overwhelming mode of exposure in HIV diagnoses reported between 2003 and 2005 (68%), this appears to be less the case for black and Hispanic men. Among Hispanic men, MSM and IDU are more evenly represented (32% and 27% respectively). Among black men, presumed heterosexual appears to be the predominant mode of exposure. This is notable for two reasons: first, the “presumed heterosexual” category was created particularly to capture women’s risk. Most individuals under



this category are women who were previously listed under “No Identified Risk” due to the limited information many women are able to provide about the risk history/HIV status of their male partners. Second, there is no reason to believe that heterosexual transmission from a woman to a man is more common among black men. (Fig. 8) These are relatively uncommon occurrences in the United States.

Several explanations for the unusually high rates of presumed heterosexual exposure among black men are possible. First, a significant number of black individuals with HIV in Massachusetts are non-US born immigrants and refugees. Some of these men, who may have been exposed in their countries of origin, where heterosexual transmission is more common (due to local factors, including higher background prevalence of HIV in the population and higher rates of untreated STDs) are categorized under the “presumed heterosexual” mode of exposure. It is also possible that a number of these individuals indicated heterosexual exposure to their diagnosing physician due to social stigma associated with same-sex sexual behavior and injection drug use. Behavioral studies and other mechanisms for collecting personal histories are indicated to clarify this apparent discrepancy in the data.

Among white women diagnosed between 2003 and 2005, injection drug use remains the predominant mode of exposure, while for black and Latina women, presumed heterosexual and (confirmed) heterosexual are the leading modes of exposure. It is again worthy of notice that the proportion of black women listed under “presumed heterosexual” is greater than that of other women. (Fig. 9)

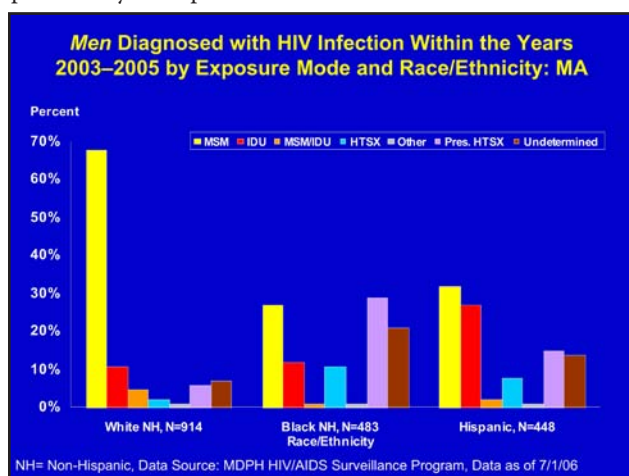


Figure 8

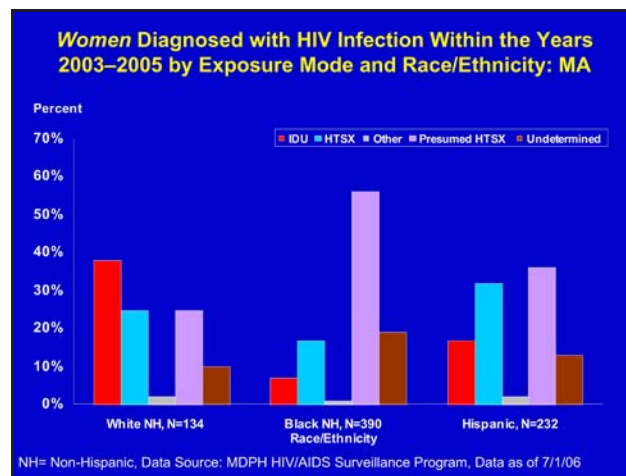


Figure 9

In addition to the factors listed above for black men, it is also possible that black women have less information about their male partners' sexual and/or drug using histories, another possible indicator of social stigma that may constrain open dialogue about risk. These questions bear additional examination. The CDC's National HIV Behavior Survey, a series of community-based interviews with members of MSM, IDU, and high-risk heterosexual communities, which the Massachusetts Department of Public Health participates in, may help clarify the background levels of these risks in all racial/ethnic populations. The first data from these cycles of community interviews will be available in early 2008.

Sexual and drug-use related risks are interactive. The likelihood of sexual transmission of HIV is highly related to the background prevalence of HIV in a given population. In communities with higher HIV prevalence, the same act of unprotected intercourse carries a greater level of risk of transmission than in populations with lower overall prevalence of the virus.

V. Differential patterns of utilization of HIV/AIDS services

A recent review of program expenditures by the MDPH HIV/AIDS Bureau examined allocations of contractual resources for their service populations. When taken as a whole, allocation of these community-based program resources closely match the representation of communities of color in Massachusetts (53% of all service funds are directed toward communities of color, who represent 54% of persons living with HIV/AIDS in the Commonwealth). But given the growing disproportion in new cases among black, Hispanic and immigrant/refugee populations, a closer look at these allocations and the utilization of services is warranted.

This prevalence-related risk is somewhat offset by well documented higher rates of condom use by members of certain communities of color. The Behavioral Risk Factor Surveillance Survey (BRFSS), an annually conducted random telephone survey of Massachusetts adults conducted by the Massachusetts Department of Public Health in collaboration with the Centers for Disease Control and Prevention, tracks, among other behaviors, patterns of condom use among sexually active adults. Of 4,052 sexually active respondents to the 2004 and 2005 BRFSS ages 18-64 years, 25% reported using a condom at last sexual encounter (26% of male respondents and 23% of female respondents). However, 40% of black (non-Hispanic) respondents and 38% of Hispanic respondents reported condom use at last sexual encounter, compared to 22% of white (non-Hispanic) individuals. This is community-based resiliency and response to risk that HIV prevention efforts can further capitalize upon.



The major categories of service the HIV/AIDS Bureau funds include: prevention and education, HIV counseling and testing, medical care for persons with HIV/AIDS, and non-medical support services for persons with HIV/AIDS. Each of these global areas have specific sub-categories of programming. For example, prevention and education includes individual, group, and community-level prevention services, as well as needle/syringe exchange programs. Medical care includes medical management services (EMMS), the HIV Drug Assistance Program (HDAP), and corrections-based health services. Client services include case management, transportation, nutrition services, child care, and peer support services.

Utilization of Services by Program Category and Race/Ethnicity,
2005, MDPH HIV/AIDS Bureau

	HIV/AIDS Prevalence (MA, 12/31/05)	Prevention and Education*	Needle Exchange **	HIV Coun- seling and Testing	Medical Manage- ment ***	HIV Drug Assistance Program	Client Services ***	Correc- tions ***
White (non-Hispanic)	45%	45%	80%	42%	49%	39%	48%	44%
Black (non-Hispanic)	28%	15%	9%	20%	27%	26%	25%	28%
Hispanic	25%	27%	10%	28%	27%	28%	29%	39%
Asian/Pacific Islander	1%	4%	1%	2%	1%	2%	1%	0%
Native American/ Alaskan Native	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%
Other/unknown	<1%	<1%	5%	7%	<1%	4%	<1%	0%
* data are aggregate (not client level)								
** unduplicated exchange clients								
*** race and ethnicity categories are not mutually exclusive; totals may exceed 100% as a result								

While medical management, HIV drug assistance program, and corrections-based participants are distributed by race/ethnicity in a manner equivalent to that of persons living with HIV/AIDS in Massachusetts, certain communities of color are notably under-represented in other service modalities. African American and other black individuals appear not to be able to access or do not utilize prevention education and HIV counseling and testing services at rates that their numbers in the HIV/AIDS epidemic would suggest. On the other hand Hispanic individuals appear to be well represented in HIV/AIDS services across the board. Asian and Pacific Islander communities are somewhat over-represented in prevention education, counseling and testing, and the HIV Drug Assistance Program. Most concerning is the dramatic absence of community of color participants in the four legal needle/syringe exchange programs in Massachusetts. While a portion of this under-representation may be related to the limited number and location of these programs (Boston, Cambridge, Northampton, and Provincetown), one would still expect more vigorous utilization of these services by black and Hispanic injection drug users than is currently seen.

Factors influencing access to services among communities of color

Multiple factors likely contribute to these patterns of utilization. These include the sufficiency of outreach and engagement activities, the staffing and location of services, ongoing stigma associated with services linked to HIV/AIDS and the behaviors

that transmit HIV, and culturally-specific traditions and values about public health and medical care.

In selected service areas, utilization of services may be affected by the relative lack of culturally competent and linguistically appropriate staff, as well as staffing patterns that do not mirror the communities intended to be served. Members of communities of color may not feel safe or welcome in service environments that lack appropriate program staff.

Despite the fact that public resources are allocated in a manner consistent with the distribution of HIV/AIDS cases by race/ethnicity and geography, it may be that some communities require a greater investment to attract and engage members in selected services. This may be particularly true of African American and other black communities. It may be argued that the urgent medical needs of HIV+ black individuals compels regular participation in health care and medication assistance programs, while the larger population of persons of unknown HIV status remain relatively untouched by the benefits of preventive and testing services, despite efforts to build programs in these areas that address community-specific language, values, and conditions of risk.

The very attitudes in some communities about HIV/AIDS and about the populations at risk for HIV infection may be a barrier to accessing services. Attitudes about gay and bisexual individuals, injection drug use, and specific sexual behaviors may prove a challenge to participating in preventive services, just as denial of the very prevalence of HIV in one's home community may enable avoidance of testing services.

The history of unethical and invasive medical and public health practices in the past appears to be a major factor in the lower than expected utilization of HIV/AIDS services. Beliefs about the public health system, particularly in the African American community, are rooted in the history of research studies (such as the Tuskegee syphilis study), the eugenics movement, and long-standing patterns of unequal treatment in medical care

are reinforced both by word-of-mouth and ongoing experience. Despite the location of HIV/AIDS services in communities of color statewide (and great effort to staff these programs with members of their priority populations) these services continue to be delivered largely by white individuals located in large institutions that may be intimidating to certain members of these communities.

VI. Special issues surrounding immigrant and refugee communities

An increasing proportion of persons living with HIV/AIDS in Massachusetts were born outside of the U.S. This is not surprising given the higher prevalence of HIV in a number of regions of the world and the greater availability of life-saving treatments in the United States than in many home countries.

Non-US born individuals represent a significant proportion of black and Hispanic populations living with and recently diagnosed with HIV. Among non-US born persons diagnosed with HIV infection within the three-year period 2003 to 2005, 10% were white (non-Hispanic), 59% were black (non-Hispanic), 25% were Hispanic, and 4% were Asian/Pacific Islander. Among black individuals, non-US born persons are fully half of those recently diagnosed with HIV (Figure 10) and a majority of black women with HIV (Figure 11). While a smaller proportion of Hispanic persons recently diagnosed with HIV are non-US born, when U.S. citizens who were born in Puerto Rico or other US dependencies and territories are factored in, the majority of



Hispanic individuals living with HIV in MA were not born in the continental U.S. While these citizens do not face the same immigration issues as non-US born individuals, linguistic and economic forces, as well as issues of family displacement, discrimination in employment, and social isolation may be similar.

Figure 10

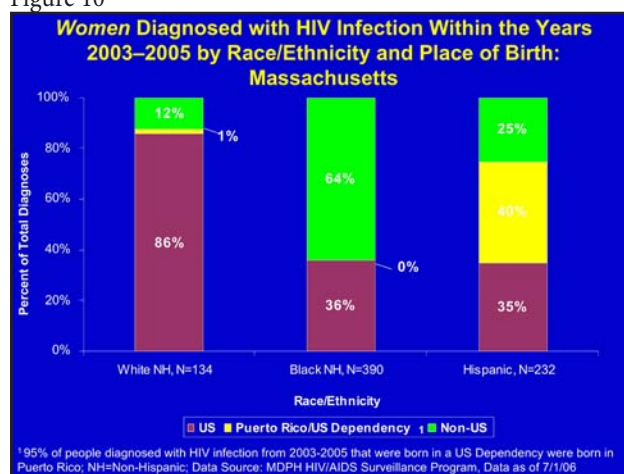
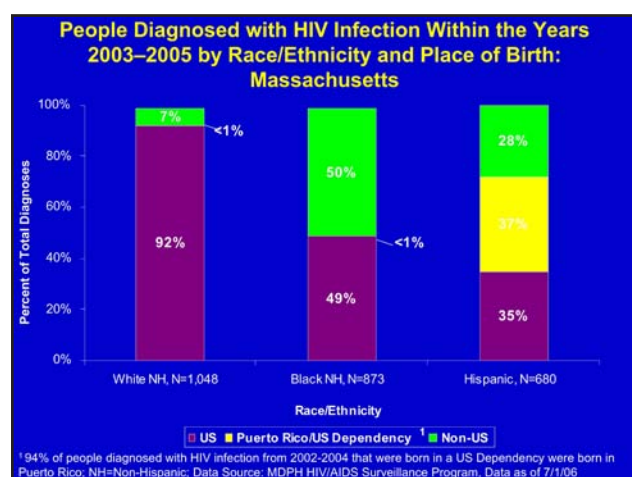


Figure 11



Immigrants living with HIV largely derive from three major regions of the world: sub-Saharan Africa, the Caribbean Basin, and Central/South America, with much smaller representation of other North American countries, Europe, and Asia (Figure 12).

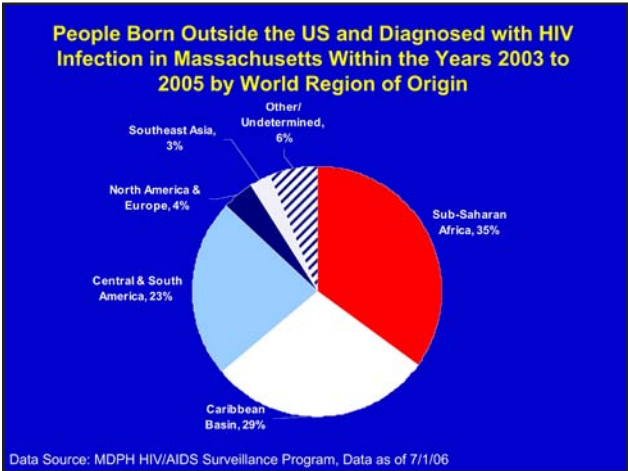


Figure 12

A regional analysis should not obscure important national differences between persons with HIV. Among individual countries of origin, Haiti is the birthplace of the largest number of persons recently diagnosed with HIV (2003-2005) in Massachusetts:

Haiti	17%	(N=129)
Brazil	10%	(N=72)
Dominican Republic	7%	(N=55)
Uganda	6%	(N=44)
Kenya	5%	(N=40)

These numbers might reflect patterns of immigration as well as seroprevalence in these countries rather than heightened patterns of risk. Men born outside the US have exposure modes similar to those of US-born men, but with lower rates of injection drug use (3%) and higher rates of heterosexual and presumed heterosexual exposure (11% and 34% respectively). This is to be expected among men who were born in countries that have higher rates of heterosexual transmission, often related to significantly higher background prevalence of HIV (some Southern African countries have rates of HIV infection among

young adults approaching 40%), and concurrent high rates of untreated STDs which are known to facilitate HIV transmission. But the equivalently high rate of same-sex sexual behavior among HIV+ men in these populations (32%) should not be overlooked. Also, case reports of HIV+ men who are non-US born are more likely not to report an exposure category (19%).

Among non-US born women, on the other hand, heterosexual and presumed heterosexual sex is the overwhelming mode of exposure, again with a high rate of undetermined risk (Figure 13).

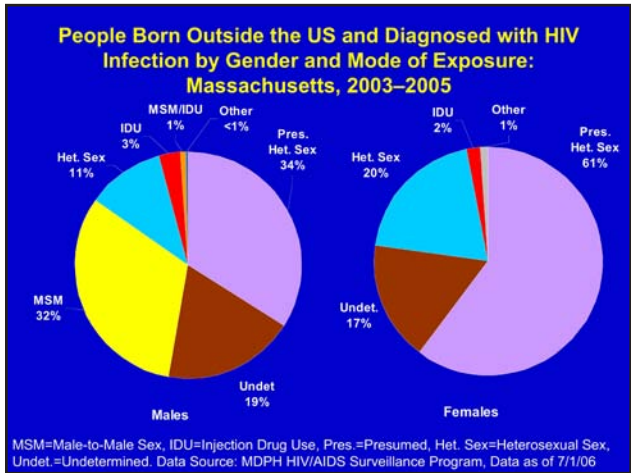


Figure 13

Of particular concern is the higher than average tendency of non-US born individuals to enter HIV care at a late stage of their infection. This tendency is seen in data that indicates the proportion of individuals who were diagnosed with AIDS within two months of first report of HIV infection (Figure 14).

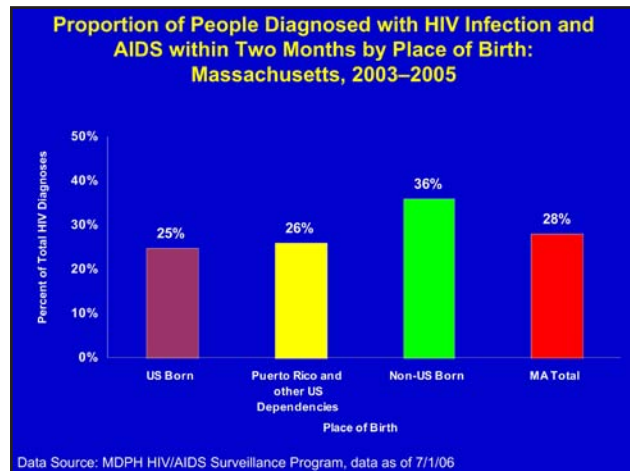


Figure 14

While 25% of US born individuals are diagnosed with AIDS within two months of first HIV report, fully 36% of non-US born individuals enter care (which prompts a case report) when their immune system is already severely compromised. Factors influencing this outcome include the possibility of some non-US born individuals having lived with HIV, often untreated, in their countries of origin for a number of years, but are reported to Massachusetts authorities only once entering care here. Other factors may include relatively low levels of knowledge about HIV, lack of linguistically and culturally appropriate outreach, preventive, and testing services, ongoing immigration challenges and avoidance of formal health care systems out of fear of being reported to federal authorities, and the same patterns of economic and societal discrimination faced by other communities of color that compromise efforts to seek out public health services.

VIII. Recommendations to address rates of HIV among communities of color

- Expand the public health investment in programs serving members of communities of color so that it exceeds their relative representation in the epidemic
- Expand culturally-specific public information about HIV to build a greater level of knowledge about HIV risk, risk reduction, the utility of HIV testing, and the availability of HIV services among communities of color
- Expand social network outreach efforts to more effectively engage members of communities of color in preventive and testing services by relying on the trusting relationships that are a major source of resiliency in these communities
- Develop, test, and implement science-based prevention interventions that utilize the language, visual images, values, and traditions of various communities of color
- Expand the availability of needle/syringe access programs in locations likely to be utilized by members of communities of color
- Expand the representation of members of communities of color in the staffing of public health and medical programs
- Increase the availability of routine and rapid HIV testing in health care settings and other community locations likely to be utilized by members of communities of color
- Expand the availability of partner counseling and referral services to assist newly diagnosed HIV+ individuals to inform their partners of possible HIV exposure
- Continue and expand corrections-based health care and preventive services for HIV+ and at-risk members of communities of color



